## **ABSTRACT**

The invention relates to a reversible axial piston machine (1) consisting of a cylinder drum (5) which rotates about a rotational axis (7) and in which pistons can be displaced in cylinders (6), said pistons being supported against an inclined surface (8). The angle of adjustment ( $\alpha$ 1,  $\alpha$ 2) of the inclined surface (8) can be adjusted in both pivoting directions by means of a control piston (24) pertaining to the adjusting device (12), said control piston extending essentially parallel to the direction of the rotational axis (7) of the cylinder drum (5). The zero position of the adjustment of the inclined surface (8) can be adjusted without play by means of a zero position adjusting device (32).